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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,842	01/28/2005	Zheng Lu	LCS-103/PCT/US	1886

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EXAMINER	
PENG, KUO LIANG	

ART UNIT	PAPER NUMBER
1712	

MAIL DATE	DELIVERY MODE
08/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,842	LU ET AL.	
	Examiner	Art Unit	
	Kuo-Liang Peng	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/28/05 Prel. Amendment*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5,6,8-17 and 20-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5,6,8-17 and 20-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/28/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Applicants' preliminary amendment filed January 28, 2005 is acknowledged. Claims 3-4, 7, 18-19 and 25-37 are deleted. Now, Claims 1-2, 5-6, 8-17 and 20-24 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2, 8-10, 12, 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Naganawa (US 5 861 458).

Naganawa discloses an aqueous mold release composition comprising a polysiloxane containing hydrolysable groups such as alkoxy, etc, an emulsifier, an alkaline substance (a base), a coloring agent, a thickener, etc. The polysiloxane can also contain hydroxyl groups. (col. 1, line 64 to col. 5, line 61) Examiner notes that the polysiloxane contains multiple functional groups. The polysiloxanes can crosslink among themselves. Thus, polysiloxanes are themselves crosslinkers. The composition does not contain VOC and have no flash point. Since the composition contains a base, the pH value should fall within the claimed range.

5. Claims 11, 16-17, 22 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Naganawa.

Naganawa discloses an aqueous mold release composition, *supra*, which is incorporated herein by reference. Since Naganawa discloses all the limitations of the instant claims except the properties or functions such as the claimed durability, uniformity of wetting, effectiveness of the release of a molded epoxy part, the extent of mold release transferred to a mold part, etc, and the examiner cannot

determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naganawa, optionally, in view of Wagner (US 5 464 586).

Naganawa discloses an aqueous mold release composition, *supra*, which is incorporated herein by reference. Naganawa is silent on the use of a slip agent. However, Applicants admit, "[the] **presence** and/or amount of slip agent can be selected or determined within the specified range by **a person of ordinary skill in the art** based on the desired or observed release performance for a particular application." (Specification, [0034]) Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to add a slip agent in Naganawa's mold release composition, if necessary, for further improving the release properties. Alternatively, Wagner teaches the use of a slip agent such as polytetrafluoroethylene in an aqueous mold release composition. (col. 2, lines 30-38) Therefore, it would have been obvious to one of ordinary skill in the art at the

time of invention to incorporate Wagner's slip agent in Naganawa's composition with expected success.

7. Claims 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naganawa.

Naganawa discloses an aqueous mold release composition, *supra*, which is incorporated herein by reference.

For Claim 15, Naganawa is silent on the use of a transfer control agent. However, Naganawa teaches the importance of the surface paintability. (col. 6, lines 1-10) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to add a transfer control agent into the composition.

For Claim 21, Naganawa is silent on the claim viscosity. However, the viscosity of the composition can affect the coating process, thickness per coating, etc. As such, the viscosity is a Result-Effective variable. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize a composition with whatever viscosity through routine experimentation in order to afford a coating with desired properties. Especially, Applicants do not show the criticality of the viscosity. See MPEP 2144.05 (II).

8. Claims 1-2, 5-6, 8-17 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens (US 5 601 641) in view of Martin (US 6 294 007).

For Claims 1-2, 5-6, 8, 11-13, 15-17, 22 and 24, Stephens discloses an aqueous mold release composition comprising an alkyl trialkoxysilanes (a **crosslinker**), a methyl-terminated polydimethylsiloxanes emulsified polymer (a **slip agent** or a **transfer control agent**), **surfactants** such as a fluoroalkyl surfactant, a synthetic ethoxylated amine surfactant (a **base**), a **silanol** terminated polydimethyl siloxane, water, etc. (col. 2, lines 21-49) Stephens is silent on a thickener. However, it is well known that the viscosity of a mold release composition is important. Furthermore, Martin teaches the use of a **thickener** in an organopolysiloxane-based mold release. The motivation is to properly adjust the viscosity of the composition. (col. 8, line 47 to col. 9, line 4) In light of the benefit mentioned, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a thickener in Stephens composition with expected success. Especially, Martin is in the same filed as that of Stephens' endeavor. Since Stephens discloses all the limitations of the instant claims except the properties or functions such as the claimed durability, uniformity of wetting, effectiveness of the release of a molded epoxy part, the extent of mold release

transferred to a mold part, etc., and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). For Claims 9-10, Stephens' composition can contain a lower alkyl alcohol in an amount as low as 0.5 wt%. (col. 2, lines 21-49) As such, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) Since Stephens' composition is substantially the same as that of Applicants', both should have no flash points. For Claim 14, Stephens is silent on the use of a dye. However, Martin teaches the use of a dye. The motivation is to determine the coverage of the coating on the mold. (col. 8, lines 55-57) In light of the benefit, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a dye in Stephens' composition. Especially, Martin is in the same field as that of Stephens' endeavor. For Claim 21, Stephens is silent on the claim viscosity. However, the viscosity of the composition can affect the coating process, thickness per coating, etc. As such, the viscosity is a Result-Effective variable. Therefore, it would have been obvious to one of ordinary skill

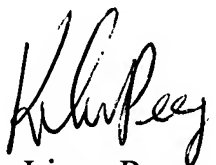
in the art at the time of invention to utilize a composition with whatever viscosity through routine experimentation in order to afford a coating with desired properties. Especially, Applicants do not show the criticality of the viscosity. See MPEP 2144.05 (II). For Claim 23, Stephens is silent on the claimed molecular weight range. However, the molecular weight of the silanol-terminated polydimethylsiloxanes can affect the crosslinking density, the brittleness, durability, etc. of the resulting coating. As such, the molecular weight of the polymer is a Result-Effective variable. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize a silanol-terminated polydimethylsiloxane having whatever molecular weight through routine experimentation in order to obtain a coating with desired properties. Especially, Applicants do not show the criticality of the molecular weight. See MPEP 2144.05 (II).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp
August 23, 2007



Kuo-Liang Peng
Primary Examiner
Art Unit 1712